



Corrigendum

Corrigendum to “Deoxygenation of benzofuran in supercritical water over a platinum catalyst”

[Appl. Catal. B: Environ. 123–124 (2012) 357–366]

Jacob G. Dickinson, Jack T. Poberezny, Phillip E. Savage*

Department of Chemical Engineering, University of Michigan, Ann Arbor, MI 48109-2136, USA



ARTICLE INFO

Article history:

Received 28 May 2014

Accepted 17 June 2014

Available online 5 July 2014

The authors reported on the deoxygenation kinetics of 2,3-benzofuran over a Pt/C catalyst in supercritical water. Table 2 in this article provided the rate equations used to fit the model to the reaction data. Several of the concentration variables in that table had incorrect subscripts. The table below provides the correct reaction rate equations, using the equation numbering from the original article.

Table 2
Corrected kinetic model. w is catalyst mass (gcat), t is time (min), C is concentration (mol/L), with the following subscripts: BF = benzofuran, EP = ethylphenol, EB = ethylbenzene, ECHONE = ethylcyclohexanone, ECHOL = ethylcyclohexanol, ECH = ethylcyclohexane.

$$\frac{1}{w} \frac{dC_{BF}}{dt} = -k_1 C_{BF} C_{H_2} \quad (3)$$

$$\frac{1}{w} \frac{dC_{EP}}{dt} = k_1 C_{EP} C_{H_2} - \frac{C_{EP} C_{H_2} (k_2 + k_6)}{1 + K_1 C_{BF}} - k_3 C_{EP} C_{H_2}^2 + k_{-3} C_{ECHONE} \quad (4)$$

$$\frac{1}{w} \frac{dC_{EB}}{dt} = \frac{k_2 C_{EP} C_{H_2}}{1 + K_1 C_{BF}} \quad (5)$$

$$\frac{1}{w} \frac{dC_{ECHONE}}{dt} = k_3 C_{EP} C_{H_2}^2 - k_{-3} C_{ECHONE} - k_4 C_{ECHONE} C_{H_2} + k_{-4} C_{ECHOL} \quad (6)$$

$$\frac{1}{w} \frac{dC_{ECHOL}}{dt} = k_4 C_{ECHONE} C_{H_2} - k_{-4} C_{ECHOL} - k_5 C_{ECHOL} C_{H_2} \quad (7)$$

$$\frac{1}{w} \frac{dC_{ECH}}{dt} = k_5 C_{ECHOL} C_{H_2} \quad (8)$$

$$\frac{1}{w} \frac{dC_{H_2}}{dt} = -2k_1 C_{BF} C_{H_2} - \frac{C_{EP} C_{H_2} (k_2 + k_6)}{1 + K_1 C_{BF}} - 2k_3 C_{EP} C_{H_2}^2 + 2k_{-3} C_{ECHONE} - k_4 C_{ECHONE} C_{H_2} + k_{-4} C_{ECHOL} - k_5 C_{ECHOL} C_{H_2} \quad (9)$$

DOI of original article: <http://dx.doi.org/10.1016/j.apcatb.2012.05.005>.

* Corresponding author at: 3074 H.H. Dow Building, 2300 Hayward Street, Ann Arbor, MI 48109, USA. Tel.: +1 734 764 3386; fax: +1 734 763 0459.
E-mail address: psavage@umich.edu (P.E. Savage).